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## **Ambarella Introduces Automotive Multi-Camera Electronic Mirror and Surround View SoCs**

### ***New Ambarella A9AQ SoC to Power Latest Gentex Three-Camera Vision System***

SANTA CLARA, Calif.--(BUSINESS WIRE)-- Ambarella, Inc. (NASDAQ:AMBA), a leading developer of low-power, HD and Ultra HD video processing semiconductors, today introduced its AEC-Q100 qualified A9AQ family of automotive camera System-on-Chips (SoCs). The Ambarella A9AQ is a 4K Ultra HD single-chip solution for single or multi-camera electronic mirror, surround view, and video recording systems. A9AQ features an 800MHz dual-core ARM® Cortex®-A9 CPU to provide powerful processing performance for varied customer applications including advanced driver assistance features, user interface, and wireless networking. Ambarella also introduced its B6 family of 4K Ultra HD capable serializer/deserializer (SERDES) companion chips to enable high performance video camera applications based on the A9AQ SoC.

The Ambarella A9AQ provides a single-chip solution for three camera side-view and rear-view electronic mirror systems. Its multi-exposure HDR processing provides superior visibility even in low light or high contrast scenes. LED flicker mitigation dramatically reduces artifacts introduced by LED headlights and traffic signs. The A9AQ can simultaneously drive video to up to three in-car displays for rear, left side and right side electronic mirror applications.

"A9AQ brings Ambarella's signature video quality to automotive applications," said Fermi Wang, president and CEO of Ambarella. "Its unique architecture and high level of system integration simplify automotive camera designs and lower overall system cost."

"We are also pleased to announce that Gentex, the automotive industry's leading supplier of rear vision solutions including camera and display mirror systems, is a key partner for A9AQ system developments," added Wang. "Gentex has led the industry with their state-of-the-art rear vision solutions and we look forward to seeing their Ambarella-based designs."

"Gentex is currently launching a new hybrid, three-camera rear vision system that streams rear video to a rear-view mirror integrated display in multiple composite views," said Neil Boehm, vice president of engineering. "We partnered with Ambarella on this project because their unique A9AQ processing allows us to present the driver with high-quality video in multiple viewing modes. By partnering together, we believe this system provides our automaker customers with a sophisticated, customizable, high-performing camera monitoring system."

For multi-camera parking assistance applications, the A9AQ's on-chip H.264 encoder enables simultaneous recording of multiple camera streams as well as video streaming to smartphones over WiFi or through in-car 4G hotspots. It provides realistic 3D HD scene rendering using a dedicated image processing engine which provides de-warping and seamless stitching of video from multiple cameras.

The A9AQ's multi-channel image processing removes the need for a dedicated ISP chip in every camera module, enabling highly compact camera modules while improving video quality, reducing power consumption, and lowering system cost. It integrates a four-channel de-serializer, removing the need for external de-serializer chips in multi-channel camera systems. The Ambarella B6 family of SERDES chips provides up to 3Gpixel raw data throughput, allowing Ultra HD at 30 frames per second or Full HD at 60 frames per second with multi-exposure HDR data.

Ambarella will demonstrate A9AQ and B6 based automotive solutions at a private event during the Consumer Electronics Show in Las Vegas from January 5 - 8, 2017.

Please contact Ambarella at [www.ambarella.com/about/contact/inquiries](http://www.ambarella.com/about/contact/inquiries) to schedule an appointment at the Ambarella private event during CES.

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## About Ambarella

Ambarella, Inc. (NASDAQ:AMBA), is a leading developer of low-power, high-definition and Ultra HD video compression and image processing solutions. The Company's products are used in a variety of cameras including security IP-cameras, wearable cameras, drone cameras and automotive video processing solutions. Ambarella compression chips are also used in broadcasting TV programs worldwide. Ambarella is the recipient of the Global Semiconductor Alliance 2015 awards for "Most Respected Public Semiconductor Company" and "Best Financially Managed Semiconductor Company," both with sales of between \$100M and \$500M. For more information about Ambarella, please visit [www.ambarella.com](http://www.ambarella.com).

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